



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of **Steven L. Archer**
Application No. 10/671,253
Attorney Docket No. 3241-P03287US01
Filed: September 25, 2003
For: AUGMENTATION OF K+ CHANNEL
EXPRESSION USING ADENOVIRAL VECTORS
Examiner: Sumesh Kaushal
Group Art Unit: 1636

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)

I hereby certify that this Correspondence is being deposited on the date listed below with the United States Postal Service as first-class mail in an envelope properly addressed to COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

April 18, 2005
Date of Certificate

Janice M. Nightlinger
Janice M. Nightlinger

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. § 1.97**

In compliance with the duty of disclosure set forth in 37 C.F.R. § 1.56, Applicant is submitting herewith a Form PTO-1449 and a copy of the references listed thereon. This Information Disclosure Statement is being filed more than three months after the filing date, but before receipt of the first Official Action on the merits. Thus, it is believed by the undersigned attorney that no fee is required under 37 C.F.R. §1.97(b).

In the event that a fee is required, the Commissioner is authorized to charge Deposit Account No. 04-1406 of the undersigned attorneys. A duplicate copy of this sheet is enclosed.

In the opinion of the undersigned, the references submitted herewith are the most pertinent of which the undersigned is aware. However, no representation is made or intended that more pertinent references do not exist.

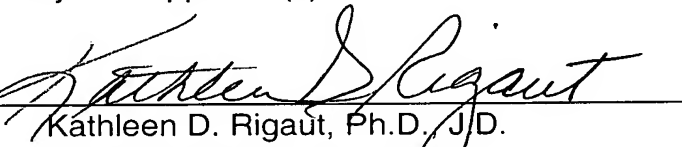
This submission is not an admission that the references listed on the attached Form PTO-1449 constitute prior art against the claims of this application.

The Examiner is respectfully requested to confirm receipt and consideration of the cited references by initialing and returning a copy of the attached Form PTO-1449 in accordance with MPEP §609.

Early and favorable consideration of this application is respectfully requested.

Respectfully submitted,

DANN, DORFMAN, HERRELL & SKILLMAN
A Professional Corporation
Attorneys for Applicant(s)

By 
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Enclosures - Form PTO-1449
Copies of references

INFORMATION DISCLOSURE STATEMENT

SHEET 1 OF 3

Complete if known

Application Number: 10/671,253
Filing Date: September 25, 2003
First Named Inventor: Stephen L. Archer, et al.
Group Art Unit: 1636
Examiner Name: Sumesh Kaushal
Attorney Docket Number: 3241-P03287US1

UNITED STATES PATENT DOCUMENTS

EXAMINER'S INITIALS	CITE NO.	PATENT NUMBER	PUBLISHED DATE MM-DD-YYYY	FIRST NAMED INVENTOR

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	CITE NO.	DOCUMENT NUMBER	COUNTRY OR REGION	DATE OF PUBLICATION MM-DD-YYYY	FIRST NAMED INVENTOR OR APPLICANT

OTHER PRIOR ART - NON-PATENT DOCUMENTS

EXAMINER'S INITIALS	CITE NO.	Include name of the author (in Capital Letters), title of the article (when appropriate), title of the item(book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	C1	McMURTRY, I.F. et al. "Lungs from chronically hypoxic rats have decreased pressor response to acute hypoxia"; Am. J. Physiol., 235: H104-H109 (1978)
	C2	ISAACSON, T.C. et al. "Increased endothelium-derived NO in hypertensive pulmonary circulation of chronically hypoxic rats"; J. Appl. Physiol., 76(2): 933-940 (1994)
	C3	WANG, J., et al. "Hypoxia Inhibits Gene Expression of Voltage-gated K ⁺ Channel α Subunits in Pulmonary Artery Smooth Muscle Cells"; J. Clin. Invest., 100(9): 2347-2353 (1997)
	C4	REEVE, H.L. et al. "Alterations in a redox oxygen sensing mechanism in chronic hypoxia"; J. Appl. Physiol., 90: 2249-2256 (2001)
	C5	PATEL, A.J. et al. "Kv2.1/Kv9.3, a novel ATP-dependent delayed-rectifier K ⁺ channel in oxygen-sensitive pulmonary artery myocytes"; The EMBO Journal, 16(22): 6615-6625 (1997)
	C6	ARCHER, S.L. et al. "Molecular Identification of the Role of Voltage-gated K ⁺ Channels, Kv1.5 and Kv2.1, in Hypoxic Pulmonary Vasoconstriction and Control of Resting Membrane Potential in Rat Pulmonary Artery Myocytes"; J. Clin. Invest., 101(11): 2319-2330 (1998)
	C7	HULME, J.T. et al. "Oxygen Sensitivity of Cloned Voltage-Gated K ⁺ Channels Expressed in the Pulmonary Vasculature"; Circ. Res., 85: 489-497 (1999)
	C8	OSIPENKO, O.N. et al. "Potential Role for Kv3.1b Channels as Oxygen Sensors"; Circ. Res., 86: 534-540 (2000)
	C9	MICHELAKIS, E. et al. "Voltage-gated potassium channels in human ductus arteriosus"; The Lancet, 356: 134-137 (2000)

EXAMINER'S SIGNATURE	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP §609. Draw a line through citation if citation not in conformance and reference not considered. Include a copy of this form with next communication to applicant.

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Examiner Name: Sumesh Kaushal

SHEET 2 OF 3


Attorney Docket Number: 3241-P03287US1

C10	ARCHER, S.L. et al. "Molecular Identification of O ₂ Sensors and O ₂ -Sensitive Potassium Channels in the Pulmonary Circulation"; Adv. Exp. Med. Biol., 475: 219-240 (2000)
C11	PÉREZ-GARCIA, M.T. et al. "Viral Gene Transfer of Dominant-Negative Kv4 Construct Suppresses an O ₂ -Sensitive K ⁺ Current in Chemoreceptor Cells"; The Journal of Neuroscience, 20(15): 5689-5695 (2000)
C12	CORNFIELD, D.N. et al. "Oxygen causes fetal pulmonary vasodilation through activation of a calcium-dependent potassium channel"; Proc. Natl. Acad. Sci., 93: 8089-8094 (1996)
C13	RIESCO, A.M. et al. "O ₂ Modulates Large-Conductance Ca ²⁺ -Dependent K ⁺ Channels of Rat Chemoreceptor Cells by a Membrane-Restricted and CO-Sensitive Mechanism"; Circ. Res., 89: 430-436 (2001)
C14	ARCHER, S., et al. "Primary Pulmonary Hypertension - A Vascular Biology and Translational Research "Work in Progress"; Circulation, 102: 2781-2791 (2000)
C15	McMURTRY, I.F. et al. "Blunted hypoxic vasoconstriction in lungs from short-term high-altitude rats"; Am. J. Physiol., 238: H849-H857 (1980)
C16	MICHELAKIS, E.D. et al. "Dichloroacetate, a Metabolic Modulator, Prevents and Reverses Chronic Hypoxic Pulmonary Hypertension in Rats - Role of Increased Expression and Activity of Voltage-Gated Potassium Channels"; Circulation, 105: 244-250 (2002)
C17	RICH, S. et al. "Magnitude and Implications of Spontaneous Hemodynamic Variability in Primary Pulmonary Hypertension"; Am. J. Cardiol., 55: 159-163 (1985)
C18	ARCHER, S.L. et al. "Impairment of hypoxic pulmonary vasoconstriction in mice lacking the voltage-gated potassium channel Kv1.5"; FASEB J., 15: 1801-1803 (2001)
C19	YUAN, X. et al. "Attenuated K ⁺ channel gene transcription in primary pulmonary hypertension"; The Lancet, 351: 726-727 (1998)
C20	YUAN, X. et al. "Hypoxia reduces potassium currents in cultured rat pulmonary but not mesenteric arterial myocytes"; Am. J. Physiol., 264: L116-L123 (1993)
C21	MORI, Y. et al. "GH3 Cell-specific Expression of Kv1.5 Gene"; The Journal of Biological Chemistry, 270(46): 27788-27796 (1995)
C22	ROULET, M.J. et al. "Oxygen-Induced Contraction in the Guinea Pig Neonatal Ductus Arteriosus"; Circ. Res., 49: 997-1002 (1981)
C23	TRISTANI-FIROUZI, M. et al. "Oxygen-induced Constriction of Rabbit Ductus Arteriosus Occurs via Inhibition of a 4-Aminopyridine-, Voltage-sensitive Potassium Channel"; J. Clin. Invest., 98: 1959-1965 (1996)
C24	MICHELAKIS, E.D. et al. "Gene transfer and metabolic modulators as new therapies for pulmonary hypertension"; Adv. Exp. Med. Biol., 502: 401-418 (2001)
C25	MICHELAKIS, E.D. et al. "Dexfenfluramine Elevates Systemic Blood Pressure by Inhibiting Potassium Currents in Vascular Smooth Muscle Cells"; J. Pharmacol. Exp. Ther., 291(3): 1143-1149 (1999)

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	Examiner Name:	Sumesh Kaushal
SHEET 3 OF 3		Attorney Docket Number: 3241-P03287US1

	C26	ARCHER, S.L. et al. "Effect of dietary fish oil on lung lipid profile and hypoxic pulmonary hypertension"; J. Appl. Physiol., 66: 1662-1673 (1989)
	C27	ARCHER, S. et al. "Effect of dietary fish oil on lung phospholipid fatty acid composition and intrinsic pulmonary vascular reactivity"; Cardiovascular Research, 21: 928-932 (1987)
	C28	MICHELAKIS, E.D. et al. "Diversity in Mitochondrial Function Explains Differences in Vascular Oxygen Sensing"; Circ. Res., 90: 1307-1315 (2002)
	C29	MICHELAKIS, E.D. et al. "Potassium Channels regulate tone in rat pulmonary veins"; Am. J. Physiol. Lung Cell. Mol. Physiol., 280: L1138-L1147 (2001)
	C30	HE, T. et al. "A simplified system for generating recombinant adenoviruses"; Proc. Natl. Acad. Sci. USA, 95: 2509-2514 (1998)

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